

Title (en)
INTEGRATED ELECTRODE MAINTENANCE FOR ROBOTIC WELDING CELL INCLUDING CAP EXTRACTOR

Title (de)
INTEGRIERTE ELEKTRODENWARTUNG FÜR EINE ROBOTISCHE SCHWEISSZELLE MIT KAPPENEXTRAKTOR

Title (fr)
MAINTENANCE D'ÉLECTRODE INTÉGRÉE DESTINÉE À UNE CELLULE DE SOUDAGE ROBOTIQUE COMPRENANT UN EXTRACTEUR DE CAPUCHON

Publication
EP 3848143 A1 20210714 (EN)

Application
EP 20215211 A 20180612

Priority
• EP 20215211 A 20180612
• EP 18922953 A 20180612
• CA 2018050702 W 20180612

Abstract (en)
A cap extractor for a welding gun comprises a housing, a pair of springs and first and second arms arranged between the springs. Each of the first and second arms have teeth configured to engage a welding cap, the first and second arms configured to move relative to the housing in first and second directions transverse to one another by deflecting the springs.

IPC 8 full level
B23K 11/30 (2006.01)

CPC (source: CN EP US)
B23K 11/11 (2013.01 - CN); **B23K 11/253** (2013.01 - US); **B23K 11/3063** (2013.01 - CN EP US); **B23K 11/3072** (2013.01 - EP US);
B23K 11/314 (2013.01 - US); **B23K 11/36** (2013.01 - CN); **B23Q 3/15536** (2016.11 - US); **B23Q 3/1556** (2013.01 - US);
B23K 11/115 (2013.01 - US); **B23Q 2003/155411** (2016.11 - US)

Citation (search report)
[X] DE 19817803 C1 19991021 - WEDO WERKZEUGBAU GMBH [DE]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2019237174 A1 20191219; BR 112020025320 A2 20210309; BR 112020025320 B1 20230516; BR 122020026900 A2 20210323;
CA 3103303 A1 20191219; CN 112399900 A 20210223; CN 112975096 A 20210618; CN 112975096 B 20230303; EP 3807040 A1 20210421;
EP 3807040 A4 20220330; EP 3848143 A1 20210714; MX 2020013328 A 20210302; US 11858058 B2 20240102; US 11945041 B2 20240402;
US 2021086288 A1 20210325; US 2021086289 A1 20210325; US 2021252630 A1 20210819

DOCDB simple family (application)
CA 2018050702 W 20180612; BR 112020025320 A 20180612; BR 122020026900 A 20180612; CA 3103303 A 20180612;
CN 201880095633 A 20180612; CN 202110229564 A 20180612; EP 18922953 A 20180612; EP 20215211 A 20180612;
MX 2020013328 A 20180612; US 201816973681 A 20180612; US 202017116695 A 20201209; US 202017116734 A 20201209